STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 116939

TO: David Lukton
Location: rem/3b75/3c70
Art Unit: 1653
March 17, 2004

Case Serial Number: 09/937150

From: P. Sheppard
Location: Remsen Building
Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

116939

SEARCH REQUEST FORM
(STIC)

Requestor's Name: David Lukton Examiner number: 71263 Date: 3/15/04

Art Unit: 1653 Phone number: 571-272-0952 Serial Number: 09-937150

Mail Box: 3-C-70 Examiner Rm: 3-B-75 Results format: paper

****

Title: Phenylalanine Derivatives

Applicants: BURKE JR., TERRENCE R.; GAO, YANG; YAO, ZHU-JUN; YANG, DAJUM

Earliest Priority Date: 3/23/99

* * * *

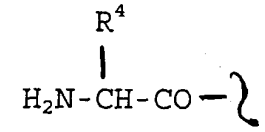
Applicants are claiming the compounds on the attached sheet

R^2 = anything

R^3 = aryl

n = an integer of 0 to 15
p = an integer of 1 to 6
q = an integer of 0 to 5

R^1 is acyl or benzoyl or carboxybenzyloxy, or else R^1 is the following:



wherein R^4 is hydrogen or alkyl or aminoalkyl or hydroxyalkyl or carboxyalkyl

X = hydrogen, amino, hydroxyl, or carboxyl
R^5 = anything
R^6 = anything

****

STAFF USE ONLY **Type of Search** **Vendors and cost where applicable**

Searcher: Sierrara

09/937150

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=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 10:26:58 ON 17 MAR 2004
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FILE COVERS 1907 - 17 Mar 2004  VOL 140 ISS 12
FILE LAST UPDATED: 16 Mar 2004  (20040316/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L3                STR
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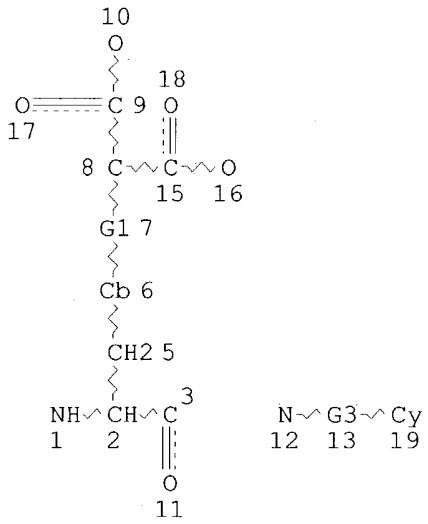


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REP G3=(1-6) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  17

STEREO ATTRIBUTES: NONE
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L6             9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5
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=>

=> d ibib abs hitrn l6 1-9

L6 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:329848 HCAPLUS
DOCUMENT NUMBER: 135:29429
TITLE: Potent blockade of hepatocyte growth factor-stimulated cell motility, matrix invasion and branching morphogenesis by antagonists of Grb2 Src homology 2 domain interactions
AUTHOR(S): Atabey, Nese; Gao, Yang; Yao, Zhu-Jun; Breckenridge, Diane; Soon, Lilian; Soriano, Jesus V.; Burke, Terrence R., Jr.; Bottaro, Donald P.
CORPORATE SOURCE: Laboratories of Cellular and Molecular Biology, Division of Basic Sciences, NCI, National Institutes of Health, Bethesda, MD, 20892-4255, USA
SOURCE: Journal of Biological Chemistry (2001), 276(17), 14308-14314
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hepatocyte growth factor (HGF) stimulates mitogenesis, motogenesis, and morphogenesis in a wide range of cellular targets during development, homeostasis and tissue regeneration. Inappropriate HGF signaling occurs in several human cancers, and the ability of HGF to initiate a program of protease prodn., cell dissocn., and motility has been shown to promote cellular invasion and is strongly linked to tumor metastasis. Upon HGF binding, several tyrosines within the intracellular domain of its receptor, c-Met, become phosphorylated and mediate the binding of effector proteins, such as Grb2. Grb2 binding through its SH2 domain is thought to link c-Met with downstream mediators of cell proliferation, shape change, and motility. We analyzed the effects of Grb2 SH2 domain antagonists on HGF signaling and obsd. potent blockade of cell motility, matrix invasion, and branching morphogenesis, with ED50 values of 30 nM or less, but only modest inhibition of mitogenesis. These compds. are 1000-10,000-fold more potent anti-motility agents than any previously characterized Grb2 SH2 domain antagonists. Our results suggest that SH2 domain-mediated c-Met-Grb2 interaction contributes primarily to the motogenic and morphogenic responses to HGF, and that these compds. may have therapeutic application as anti-metastatic agents for tumors where the HGF signaling pathway is active.
IT **264131-88-6 264131-89-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HGF-stimulated cell motility and matrix invasion and branching morphogenesis potent blockade by antagonists of Grb2 Src homol. 2 domain interactions)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:300535 HCAPLUS
DOCUMENT NUMBER: 134:320849
TITLE: Peptides for inhibition of cell motility and angiogenesis
INVENTOR(S): Bottaro, Donald P.; Atabey, Safiye N.; Soriano, Jesus

V.; Breckenridge, Diane E.; Yao, Zhu-jun; Gao, Yang
PATENT ASSIGNEE(S): The Government of the United States of America, Represented by the Secretary, Department of Health and Human Services, USA; Burke, Terrence R., Jr.
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028577	A2	20010426	WO 2000-US41423	20001020
WO 2001028577	A3	20011213		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001029166	A5	20010430	AU 2001-29166	20001020
EP 1223959	A2	20020724	EP 2000-992431	20001020
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003512334	T2	20030402	JP 2001-531405	20001020

PRIORITY APPLN. INFO.: US 1999-160899P P 19991022
US 2000-221525P P 20000728
WO 2000-US41423 W 20001020

OTHER SOURCE(S): MARPAT 134:320849

AB Disclosed are methods of inhibiting cell motility, for example, by inhibiting the binding between an intracellular transducer and a receptor protein tyrosine kinase, and more particularly by inhibiting hepatocyte growth factor (HGF)-induced cell motility. The present invention also provides a method of inhibiting angiogenesis. The methods of the present invention employ peptides such as phosphotyrosyl mimetics. The present invention further provides methods of preventing and/or treating diseases, disorders, states, or conditions such as cancer, particularly metastatic cancer comprising administering to a mammal of interest one or more peptides of the present invention. Also disclosed are methods of blocking HGF, VEGF, or bFGF-stimulated migration, cell proliferation, and formation of capillary-like structures. Addn. of Grb2 inhibitor peptide 2 (30 nM, 300 nM) resulted in a significant, albeit markedly different, inhibition of proliferation in HUVE and HMVE cells.

IT **264131-88-6 264131-89-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptides for inhibition of cell motility and angiogenesis)

L6 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:894754 HCAPLUS
DOCUMENT NUMBER: 135:57705
TITLE: Novel phosphotyrosyl mimetics for the preparation of potent small molecule Grb2 SH2 domain inhibitors
AUTHOR(S): Gao, Yang; Yao, Zhu-Jun; Voigt, Johannes; Luo, Juliet H.; Yang, Dajun; Burke, Terrence R., Jr.
CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Division of Basic Sciences, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA

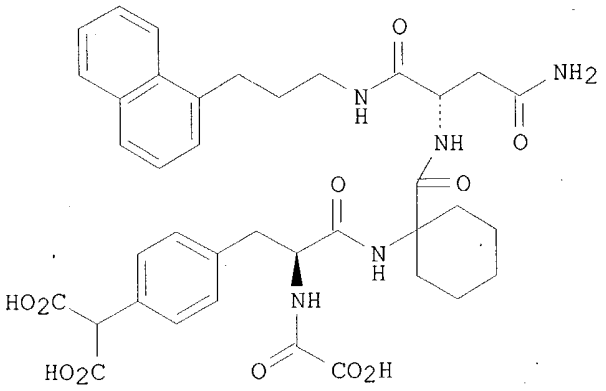
SOURCE: Peptides for the New Millennium, Proceedings of the American Peptide Symposium, 16th, Minneapolis, MN, United States, June 26-July 1, 1999 (2000), Meeting Date 1999, 566-567. Editor(s): Fields, Gregg B.; Tam, James P.; Barany, George. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 69ATHX
DOCUMENT TYPE: Conference
LANGUAGE: English
AB New, carboxy-based phosphotyrosyl mimetics are reported which exhibit binding potencies for the Grb2 SH2 domain approaching the best phosphorus-contg. analogs.
IT **264131-90-0 264131-91-1 345310-95-4 345310-97-6**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(novel phosphotyrosyl mimetics for prepn. of potent small mol. Grb2 SH2 domain inhibitors)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:688260 HCAPLUS
DOCUMENT NUMBER: 133:252752
TITLE: Preparation of phenylalanine derivatives that inhibit SH2 domain binding with a phosphoprotein
INVENTOR(S): Burke, Terrence R., Jr.; Gao, Yang; Yao, Zhu-jun; Yang, Dajun
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA; Georgetown University
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056760	A1	20000928	WO 2000-US8231	20000323
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1163262	A1	20011219	EP 2000-918474	20000323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002544119	T2	20021224	JP 2000-606620	20000323

PRIORITY APPLN. INFO.: US 1999-126047P P 19990323
WO 2000-US8231 W 20000323

OTHER SOURCE(S): MARPAT 133:252752
GI



I

AB Phenylalanine derivs., e.g., p-(R2O2C)2CHC6H4CH2CHNHPCO2H (R2 is alkyl and P is an amine protecting group) and W-Y-(AA)n-Z [Y is a substituted phenylalanyl radical; W is (un)substituted alkylcarbonyl, oxalyl, alkylamino-, arylamino-, arylalkylamino-, or alkoxyoxalyl, carboxyalkyl-, heterocyclyl-, arylalkylheterocyclylalkyl-, aryloxy-, or arylalkoxycarbonyl; AA is an amino acid; Z is arylalkylamino or arylheterocyclylalkylamino, n = 0-15], were prepd. for inhibition of SH2 domain binding with a phosphoprotein. Thus, N-Fmoc-4-(di-tert-butoxycarbonylmethyl)-L-phenylalanine (Fmoc = fluorenylmethoxycarbonyl) (6) was prepd. by reaction of di-tert-Bu malonate with p-iodotoluene, bromination, alkylation of benzyl (2R,3S)-(-)-6-oxo-2,3-diphenyl-4-morpholinecarboxylate, hydrogenolysis and N-protection. Phenylalanine deriv. 6 was used to prep. peptide I, which showed IC50 = 155 nM for inhibition of SH2 domain binding.

IT **264131-88-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of phenylalanine derivs. that inhibit SH2 domain binding with a phosphoprotein)

IT **264131-89-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of phenylalanine derivs. that inhibit SH2 domain binding with a phosphoprotein)

IT **264131-68-2P 264131-70-6P 264131-71-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of phenylalanine derivs. that inhibit SH2 domain binding with a phosphoprotein)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:380070 HCAPLUS
DOCUMENT NUMBER: 133:187602
TITLE: Examination of novel non-phosphorus-containing phosphotyrosyl mimetics against protein-tyrosine phosphatase-1B and demonstration of differential affinities toward Grb2 SH2 domains
AUTHOR(S): Gao, Yang; Wu, Li; Luo, Juliet H.; Guo, Ribo; Yang,

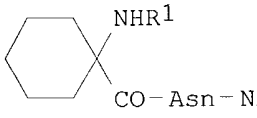
Dajun; Zhang, Zhong-Yin; Burke, Terrence R., Jr.
CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Division of Basic Sciences, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(9), 923-927
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Inhibitory potencies were compared of several mono- and dicarboxy-based pTyr mimetics in Grb2 SH2 domain vs. protein-tyrosine phosphatase-1B (PTP1B) assays. Although in both systems pTyr residues provide crit. binding elements, significant differences in the manner of recognition exist between the two. This is reflected in the current study, where marked variation in relative potencies was obsd. between the two systems. Of particular note was the poor potency of all monocarboxy-based pTyr mimetics against PTP1B when incorporated into a hexapeptide platform. The recently reported high PTP1B inhibitory potency of similar phenylphosphate mimicking moieties displayed in small mol., non-peptide structures, raises questions on the limitations of using peptides as platforms for pTyr mimetics in the discovery of small mol. inhibitors.

IT **264131-89-7 264131-91-1**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(examn. of novel non-phosphorus-contg. phosphotyrosyl mimetics against protein-tyrosine phosphatase-1B and demonstration of differential affinities toward Grb2 SH2 domains)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:311128 HCAPLUS
DOCUMENT NUMBER: 133:120673
TITLE: Large scale preparation of cell permeable, non-phosphate-containing Grb2 SH2 domain inhibitors
AUTHOR(S): Liu, Ding-Guo; Yao, Zhu-Jun; Gao, Yang; Burke, Terrence R., Jr.
CORPORATE SOURCE: Laboratory of Medicinal Chemistry National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Organic Preparations and Procedures International (2000), 32(2), 197-201
CODEN: OPPIAK; ISSN: 0030-4948
PUBLISHER: Organic Preparations and Procedures, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Tripeptides I [R = 1-naphthyl, R1 = 4-(phosphonomethyl)- or 4-(2-malonyl)-N-(carboxycarbonyl)-L-phenylalanyl] were prepd. on multi-hundred milligram scales by techniques which should be applicable to the scale-up of related signal transduction inhibitors. The synthesis relied on the prepn. of common dipeptide intermediate I (same R, R1 = H) obtained by an approx. 6-fold scale up of previously reported methodol.

Coupling with Fmoc-protected pTyr mimetics, piperidine-mediated removal of N.alpha.-Fmoc groups, acylation with t-BuO2CCOCl, and deblocking with TFA gave the final products (700 and 500 mg).

IT **264131-68-2P 264131-71-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of tripeptides as cell permeable non-phosphate-contg. Grb2 SH2 domain inhibitors)

IT **264131-89-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of tripeptides as cell permeable non-phosphate-contg. Grb2 SH2 domain inhibitors)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:264442 HCAPLUS
DOCUMENT NUMBER: 133:171766
TITLE: Potent non phosphate-containing Grb2 SH2 domain inhibitors
AUTHOR(S): Burke, Terrence R., Jr.; Gao, Yang; Yao, Zhu-Jun; Voigt, Johannes; Luo, Juliet; Yang, Dajun
CORPORATE SOURCE: Laboratory of Medicinal Chemistry, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Peptide Science (1999), 36th, 49-52
CODEN: PSCIFQ; ISSN: 1344-7661
PUBLISHER: Japanese Peptide Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Carboxy-based pTyr mimetics may potentially offer interesting alternatives to phosphonate-contg. analogs for development of signal transduction inhibitors. Reported herein is a new carboxy-based pTyr mimetic, p-malonyl phenylalanine (Pmf), which exhibits inhibitory potency approx. equiv. to the parent phosphonate-contg. Pmp when examd. in Grb2 SH2 domain binding systems. In whole cell assays, Pmf-contg. analogs also exhibit good inhibition of Grb2 binding to p185erbB-2 and provide growth inhibition at non-cytotoxic doses.

IT **264131-88-6P 288401-89-8P 288401-90-1P**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(potent non phosphate-contg. Grb2 SH2 domain inhibitors)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:118815 HCAPLUS
DOCUMENT NUMBER: 132:273980
TITLE: Inhibition of Grb2 SH2 Domain Binding by Non-Phosphate-Containing Ligands. 2. 4-(2-Malonyl)phenylalanine as a Potent Phosphotyrosyl Mimetic
AUTHOR(S): Gao, Yang; Luo, Juliet; Yao, Zhu-Jun; Guo, Ribo; Zou, Hong; Kelley, James; Voigt, Johannes H.; Yang, Dajun; Burke, Terrence R. Jr.
CORPORATE SOURCE: Laboratory of Medicinal Chemistry Division of Basic Sciences, National Cancer Institute National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Journal of Medicinal Chemistry (2000), 43(5), 911-920
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nonhydrolyzable phosphotyrosyl (pTyr) mimetics serve as important components of many competitive Grb2 SH2 domain inhibitors. To date, the most potent of these inhibitors have relied on phosphonate-based structures to replace the 4-phosphoryl group of the parent pTyr residue. Reported herein is the design and evaluation of a new pTyr mimetic, p-malonylphenylalanine (Pmf), which does not contain phosphorus yet, in Grb2 SH2 domain binding systems, approaches the potency of phosphonate-based pTyr mimetics. When incorporated into high affinity Grb2 SH2 domain-directed platforms, Pmf is 15-20 times more potent than the closely related previously reported pTyr mimetic, O-malonyltyrosine (OMT). Pmf-contg. inhibitors show inhibition consts. as low as 8 nM in extracellular Grb2 binding assays and in whole cell systems, effective blockade of both endogenous Grb2 binding to cognate erbB-2, and downstream MAP kinase activation. Evidence is provided that use of an N.alpha.-oxalyl auxiliary enhances effectiveness of Pmf and other inhibitors in both extracellular and intracellular contexts. As one of the most potent Grb2 SH2 domain-directed pTyr mimetics yet disclosed, Pmf may potentially have utility in the design of new chemotherapeutics for the treatment of various proliferative diseases, including breast cancer.

IT **264131-88-6P 264131-89-7P 264131-90-0P**
264131-91-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of non-phosphate-contg. phosphotyrosyl mimetics and inhibition of Grb2 SH2 domain binding)

IT **264131-68-2P 264131-69-3P 264131-70-6P**
264131-71-7P 264131-72-8P 264131-73-9P
264131-74-0P 264131-75-1P 264131-82-0P
264131-83-1P 264131-84-2P 264131-85-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of non-phosphate-contg. phosphotyrosyl mimetics and inhibition of Grb2 SH2 domain binding)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:609917 HCAPLUS
DOCUMENT NUMBER: 125:248492
TITLE: Preparation of peptides and compounds that bind to SH2 (src homology region 2) domains of proteins and methods for their identification
INVENTOR(S): Patel, Dinesh V.; Gordeev, Mikhail F.; Gordon, Eric; Grove, J. Russell; Hart, Charles P.; Kim, Moon H.; Szardenings, Anna Katrin
PATENT ASSIGNEE(S): Affymax Technologies N.V., Neth.
SOURCE: PCT Int. Appl., 204 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9623813	A1	19960808	WO 1996-US1544	19960131

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,

IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE
AU 9649720 A1 19960821 AU 1996-49720 19960131
PRIORITY APPLN. INFO.: US 1995-382100 19950201
WO 1996-US1544 19960131

AB SH2-binding peptides comprising a core sequence of amino acids Z7XZ8X (X = a member independently selected from the group consisting of the 20 genetically coded L-amino acids and the stereoisomeric D-amino acids; Z7 = phosphotyrosine or an isostere thereof; Z8 = asparagine or an isostere thereof; the amino acid terminus is acylated; the peptide is less than 14 amino acids; provided that if Z7 is phosphotyrosine and Z8 is asparagine, then the peptide is not GDGZ7XZ8XPLL), which bind to the SH2 domain or domains of various proteins, are prepd. These peptides and compds. have application as agonists and antagonists of SH2 domain contg. proteins, and as diagnostic or. A library of peptides bound to a solid support, useful for identifying ligands capable of binding to SH2 domains, is also prepd. therapeutic agents for the diagnosis or treatment of disease conditions. A method for identifying an SH2-binding peptide comprises contacting the resp. members of a library with an SH2 domain contg. protein or SH2 domain fragment and identifying SH2-binding peptides on the basis of a binding affinity of .ltoreq.1 .times. 10-4 M. In particular, a method for treating a disease assocd. with aberrant cell growth, differentiation, or regulation which is assocd. with defects in receptor tyrosine kinase pathways comprises administering to a patient above peptide in an amt. sufficient to partially block or inhibit a cellular signal transduction pathway. Said disease is selected from cancer, developmental and differentiation disease, and insulin-resistant (or non-insulin dependent) diabetes. Thus, a phosphotyrosine-contg. peptide library on a solid support with the general sequence A-pY-X1-X2-X3-S-V (pY = phosphotyrosine residue, X1 - X3 = Ala, Arg, Asn, Asp, Glu, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Val, Tyr, Trp, Vvl, Nle, etc.) representing 17,576 peptides was prepd. and one of the library sequence (ApYLNESV) showed greater affinity for the SH2 domain than did the pos. control sequence (ApYINQSV, residue from the SH2-binding domain of human EGF) (4.5 .mu.M vs. 12 .mu.M).

IT **181952-35-2P 181952-36-3P 181952-54-5P**
181952-57-8P 181952-61-4P 181952-62-5P
181952-63-6P 181952-64-7P 181952-65-8P
181952-66-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of peptides and peptide library having binding affinity to SH2 domains for diagnosis and treatment of diseases)

=>
=>

=> fil caold
FILE 'CAOLD' ENTERED AT 10:27:14 ON 17 MAR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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  This file supports REGistRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=>
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=> s l5
L7            0 L5

=>
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=> fil reg
FILE 'REGISTRY' ENTERED AT 10:27:23 ON 17 MAR 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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provided by InfoChem.

STRUCTURE FILE UPDATES:   16 MAR 2004  HIGHEST RN 663883-43-0
DICTIONARY FILE UPDATES:  16 MAR 2004  HIGHEST RN 663883-43-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
=>

=> d ide can l5 tot

L5   ANSWER 1 OF 30  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   345310-97-6  REGISTRY
CN   L-Aspartamide, N-(carboxycarbonyl)-4-(dicarboxymethyl)-L-phenylalanyl-1-
     aminocyclohexanecarbonyl-N1-[3-(4-methyl-1H-indol-1-yl)propyl]- (9CI)  (CA
     INDEX NAME)
FS   STEREOSEARCH
MF   C37 H44 N6 O11
SR   CA
LC   STN Files:   CA, CAPLUS

Absolute stereochemistry.
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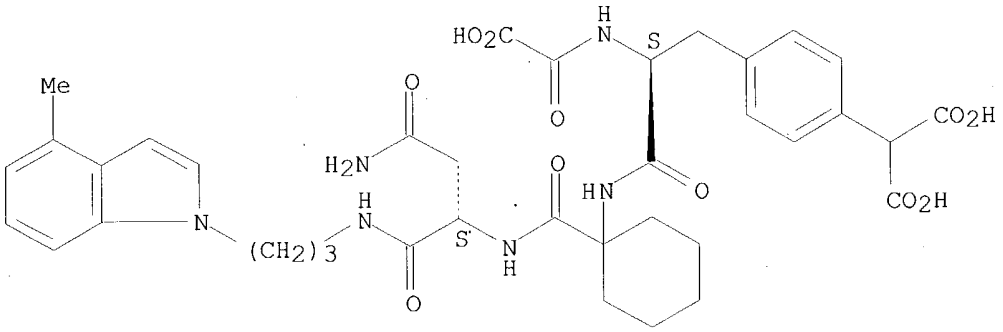

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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:57705

L5 ANSWER 2 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 345310-95-4 REGISTRY
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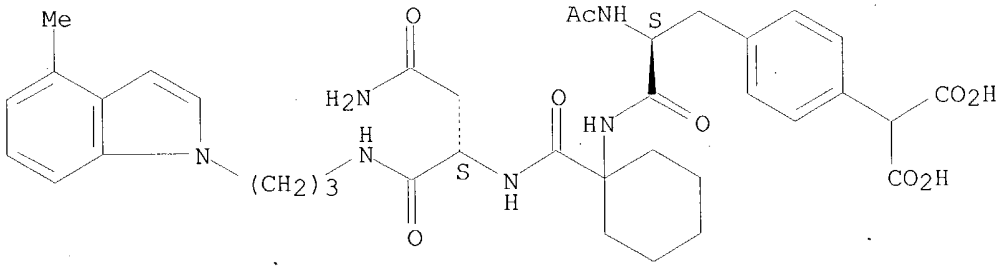
FS STEREOSEARCH
MF C37 H46 N6 O9
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

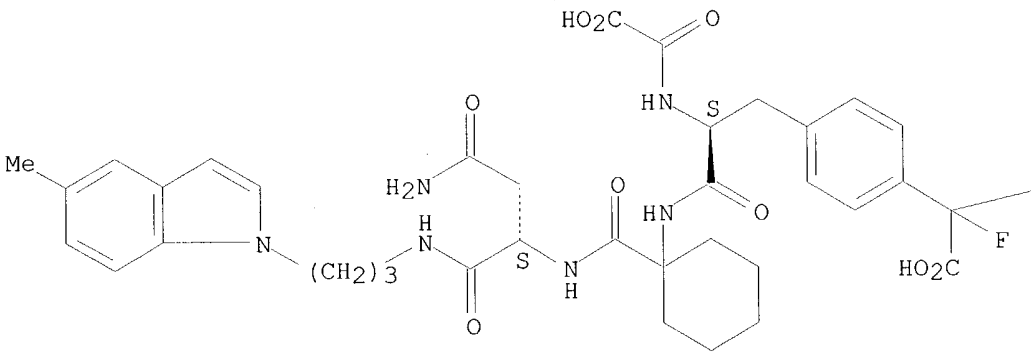
REFERENCE 1: 135:57705

L5 ANSWER 3 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 288401-90-1 REGISTRY
CN L-Aspartamide, N-(carboxycarbonyl)-4-(dicarboxyfluoromethyl)-L-phenylalanyl-1-aminocyclohexanecarbonyl-N1-[3-(5-methyl-1H-indol-1-yl)propyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H43 F N6 O11

SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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—CO_2H

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

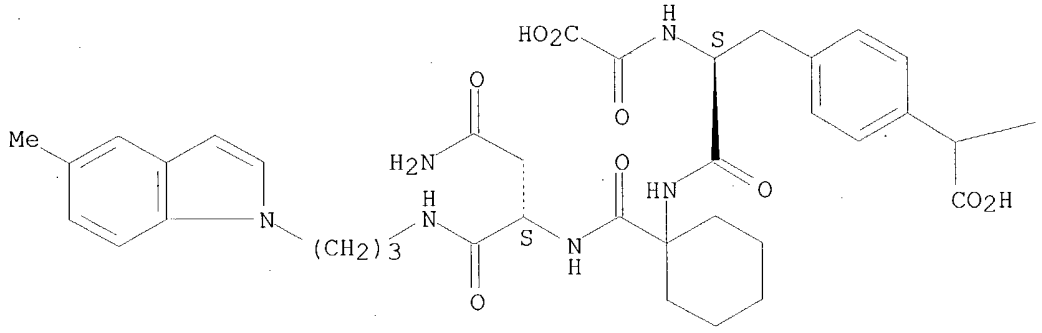
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:171766

L5 ANSWER 4 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 288401-89-8 REGISTRY
CN L-Aspartamide, N-(carboxycarbonyl)-4-(dicarboxymethyl)-L-phenylalanyl-1-aminocyclohexanecarbonyl-N1-[3-(5-methyl-1H-indol-1-yl)propyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H44 N6 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

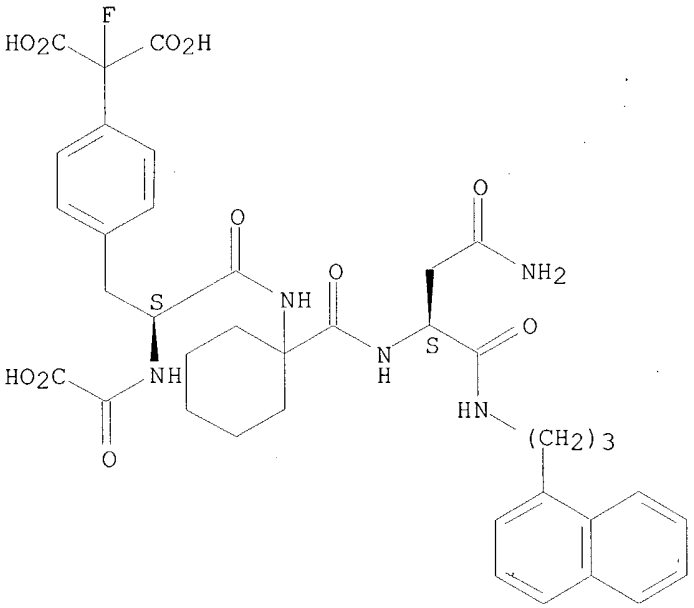
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:171766

L5 ANSWER 5 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-91-1 REGISTRY
CN L-Aspartamide, N-(carboxycarbonyl)-4-(dicarboxyfluoromethyl)-L-phenylalanyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]-(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C38 H42 F N5 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

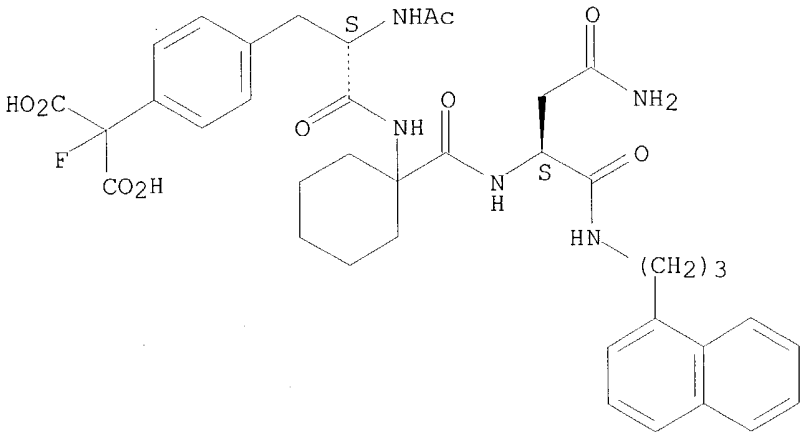
REFERENCE 1: 135:57705

REFERENCE 2: 133:187602

REFERENCE 3: 132:273980

L5 ANSWER 6 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-90-0 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-(acetylamino)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]fluoro- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C38 H44 F N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

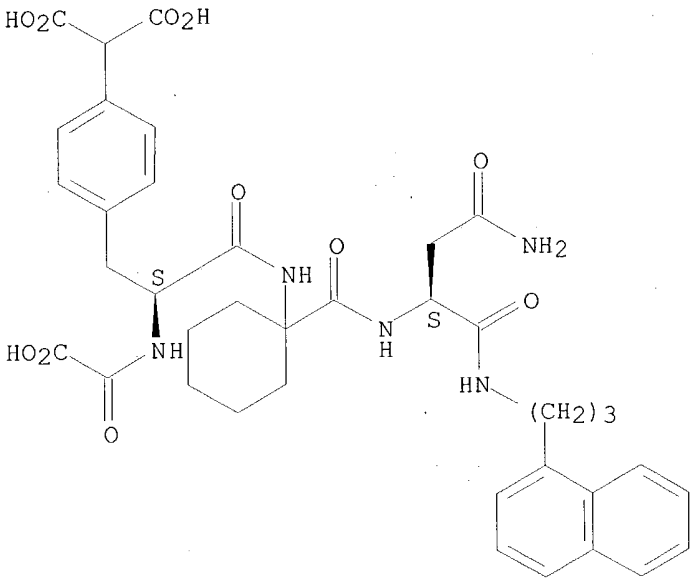
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:57705

REFERENCE 2: 132:273980

L5 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-89-7 REGISTRY
CN L-Aspartamide, N-(carboxycarbonyl)-4-(dicarboxymethyl)-L-phenylalanyl-1-aminocyclohexanecarbonyl-N1-[3-(1-naphthalenyl)propyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C38 H43 N5 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



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REFERENCE 2: 134:320849

REFERENCE 3: 133:252752

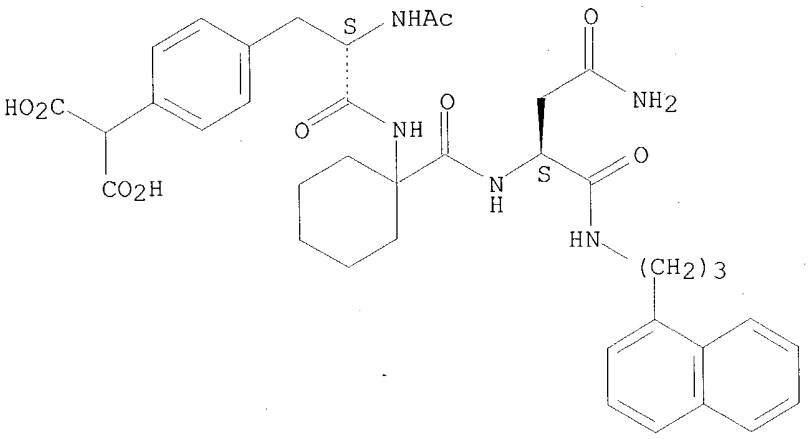
REFERENCE 4: 133:187602

REFERENCE 5: 133:120673

REFERENCE 6: 132:273980

L5 ANSWER 8 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-88-6 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-(acetylamino)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C38 H45 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:29429

REFERENCE 2: 134:320849

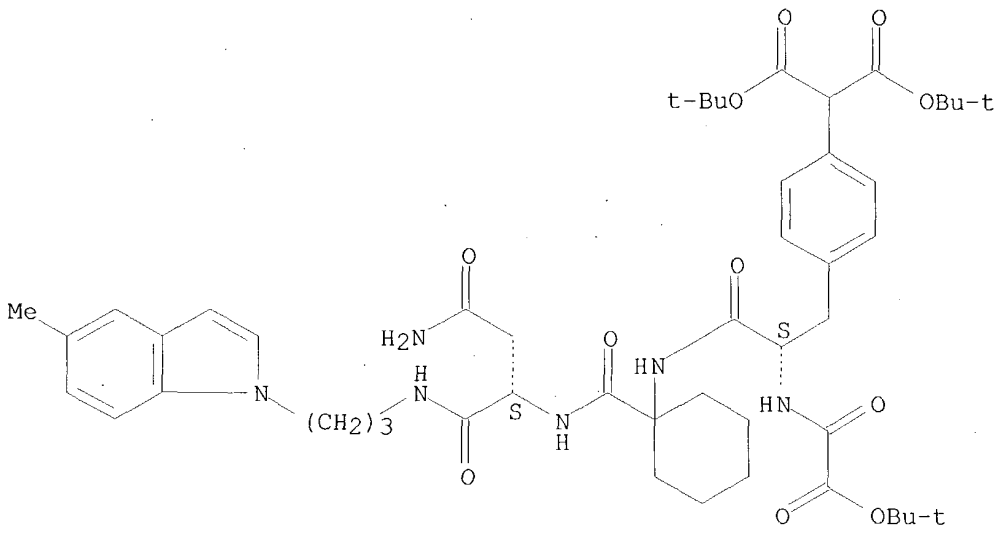
REFERENCE 3: 133:252752

REFERENCE 4: 133:171766

REFERENCE 5: 132:273980

L5 ANSWER 9 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-85-3 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(5-methyl-1H-indol-1-yl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(1,1-dimethylethoxy)oxoacetyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C49 H68 N6 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



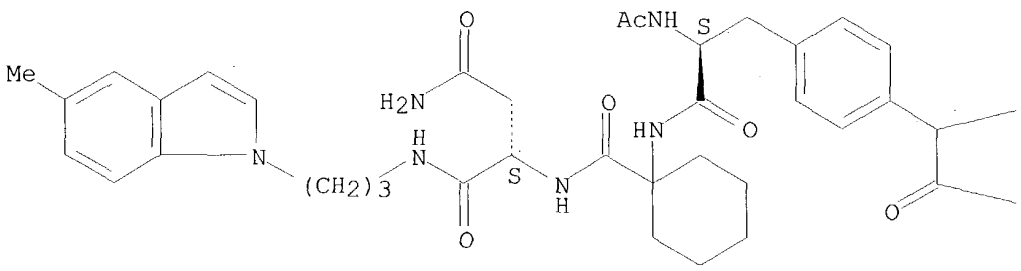
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 10 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-84-2 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-(acetylamino)-3-[[1-[[[(1S)-3-amino-1-[[[3-(5-methyl-1H-indol-1-yl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C45 H62 N6 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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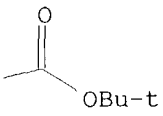

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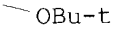

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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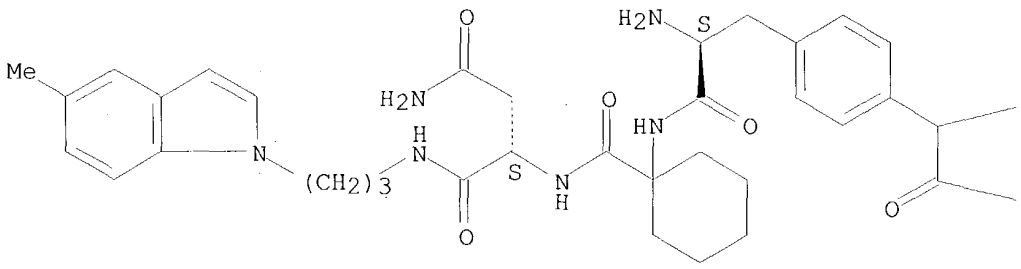
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 11 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-83-1 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-amino-3-[[1-[[[(1S)-3-amino-1-[[[3-(5-methyl-1H-indol-1-yl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C43 H60 N6 O8
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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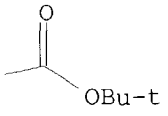

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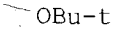

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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 12 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-82-0 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(5-methyl-1H-indol-1-yl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
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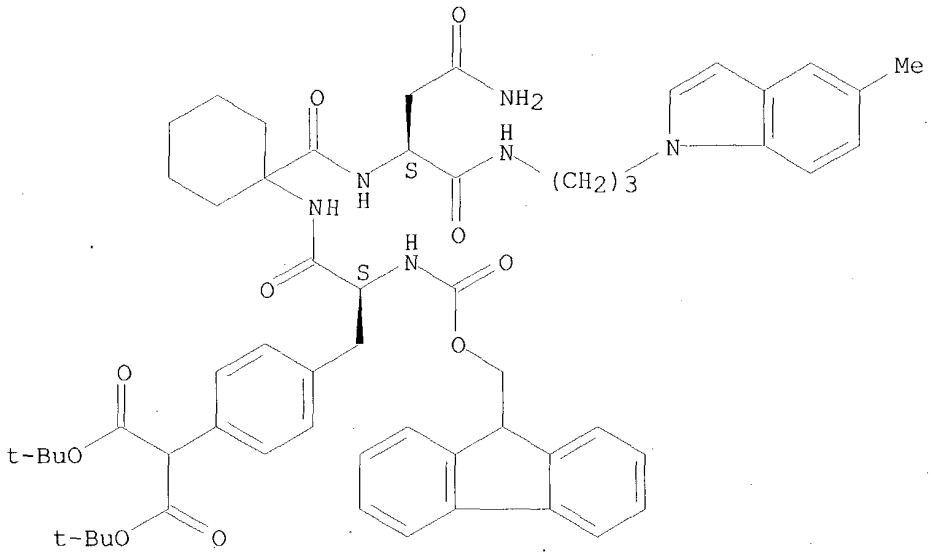
MF C58 H70 N6 O10
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



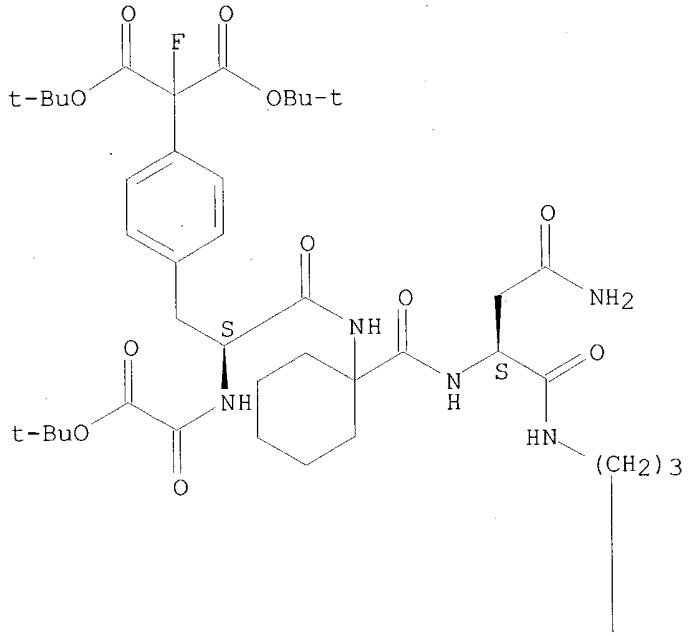
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 13 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-75-1 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(1,1-dimethylethoxy)oxoacetyl]amino]-3-oxopropyl]phenyl]fluoro-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C50 H66 F N5 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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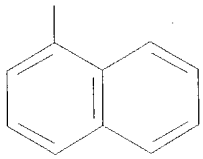

1 REFERENCES IN FILE CA (1907 TO DATE)
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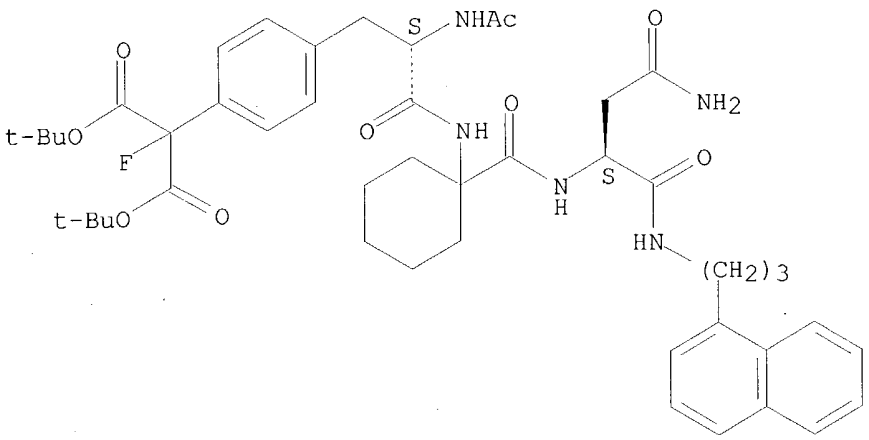
L5 ANSWER 14 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-74-0 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-(acetylamino)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]fluoro-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C46 H60 F N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

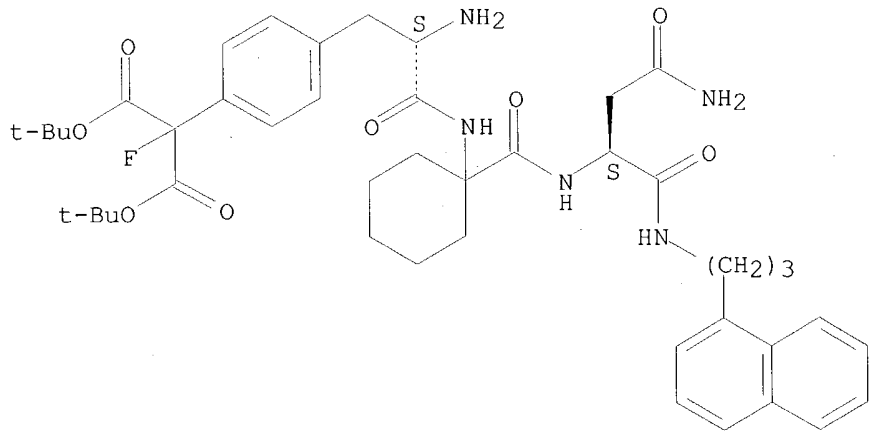


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 15 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-73-9 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-amino-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]fluoro-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H58 F N5 O8
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



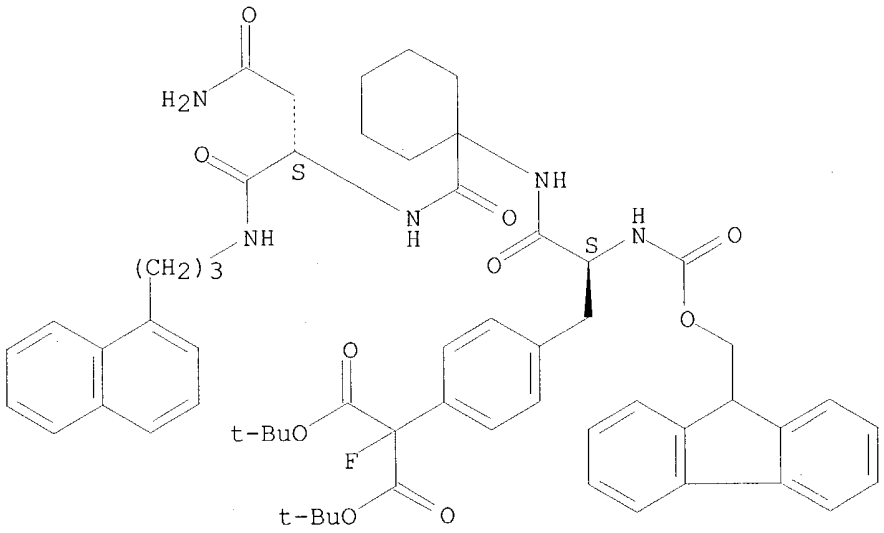
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 16 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-72-8 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-

naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-3-oxopropyl]phenyl]fluoro-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C59 H68 F N5 O10
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



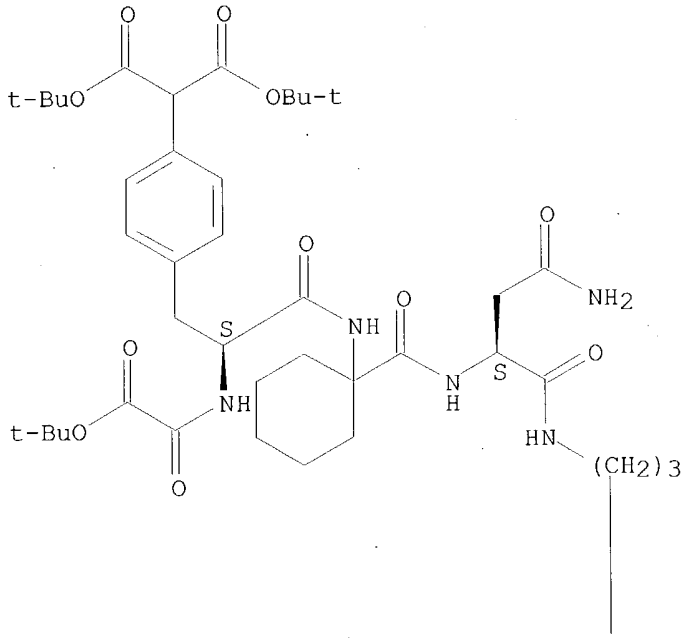
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

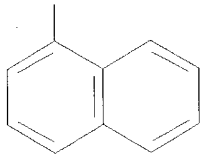
L5 ANSWER 17 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-71-7 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(1,1-dimethylethoxy)oxoacetyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C50 H67 N5 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

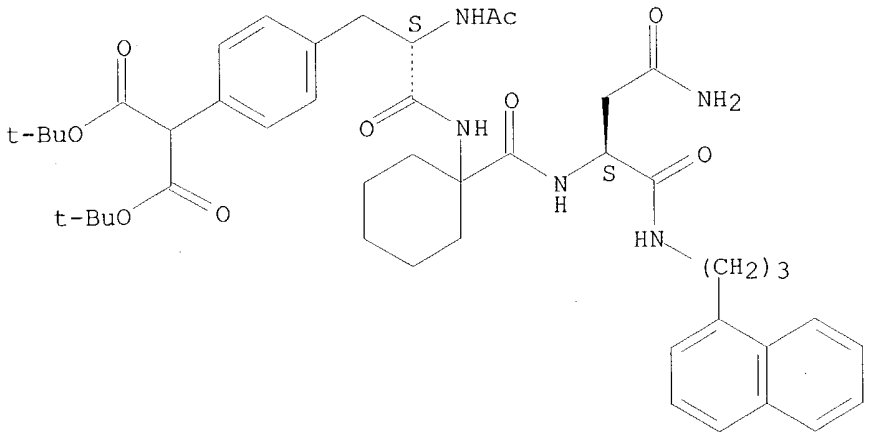
REFERENCE 1: 133:252752

REFERENCE 2: 133:120673

REFERENCE 3: 132:273980

L5 ANSWER 18 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-70-6 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-(acetylamino)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C46 H61 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



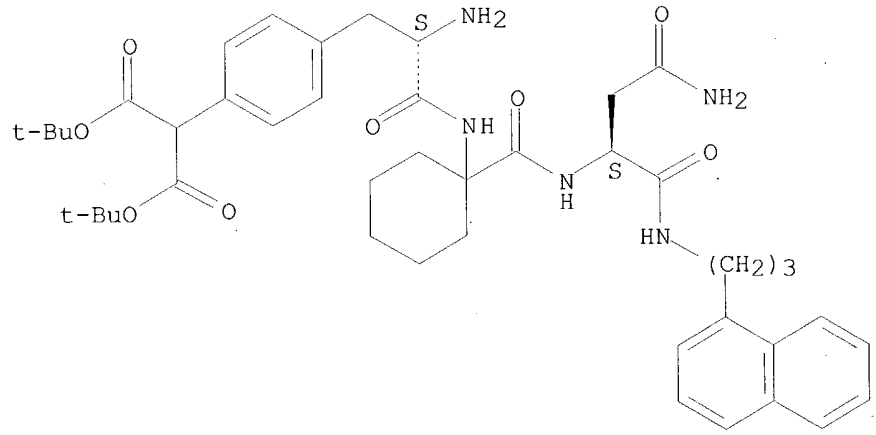
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:252752

REFERENCE 2: 132:273980

L5 ANSWER 19 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 264131-69-3 REGISTRY
CN Propanedioic acid, [4-[(2S)-2-amino-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H59 N5 O8
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



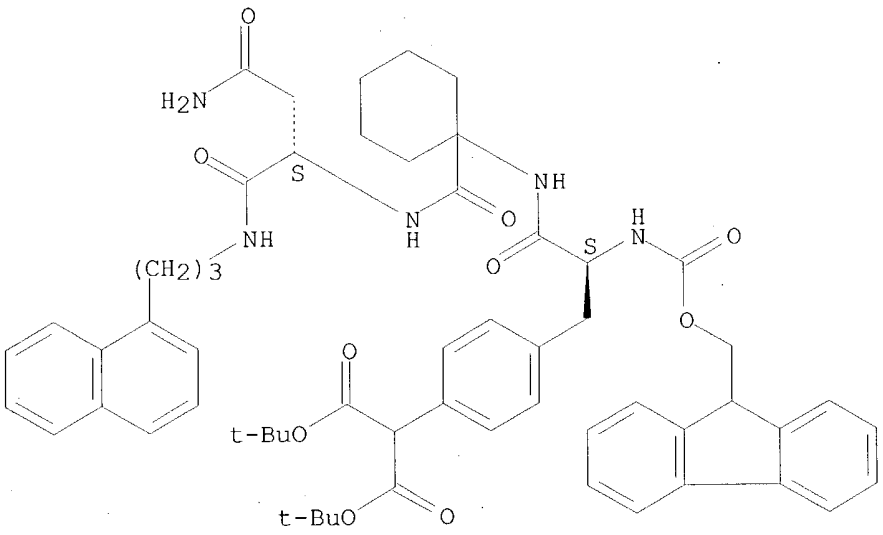
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:273980

L5 ANSWER 20 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN

RN 264131-68-2 REGISTRY
CN Propanedioic acid, [4-[(2S)-3-[[1-[[[(1S)-3-amino-1-[[[3-(1-naphthalenyl)propyl]amino]carbonyl]-3-oxopropyl]amino]carbonyl]cyclohexyl]amino]-2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-3-oxopropyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C59 H69 N5 O10
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

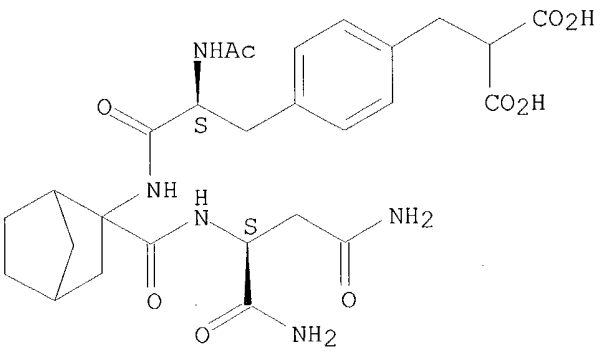
REFERENCE 1: 133:252752

REFERENCE 2: 133:120673

REFERENCE 3: 132:273980

L5 ANSWER 21 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-66-9 REGISTRY
CN L-Aspartamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-2-aminobicyclo[2.2.1]heptane-2-carbonyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C27 H35 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

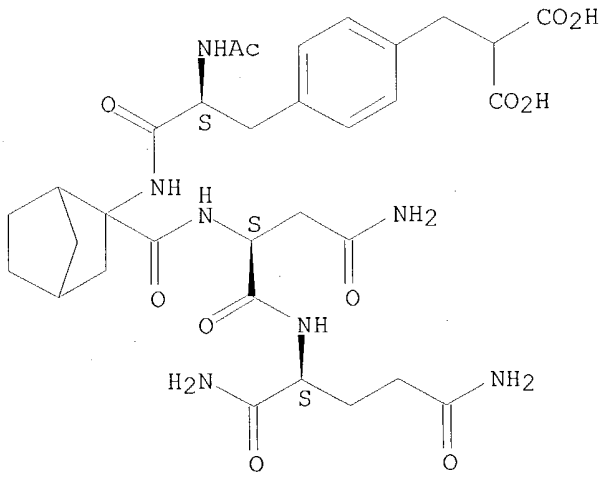
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 22 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-65-8 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-2-aminobicyclo[2.2.1]heptane-2-carbonyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C32 H43 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



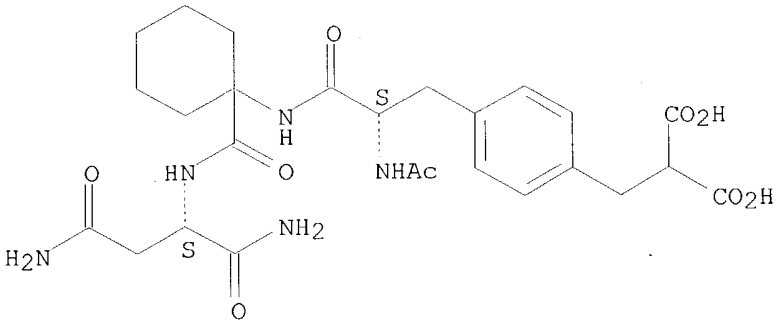
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 23 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-64-7 REGISTRY
CN L-Aspartamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-1-

aminocyclohexanecarbonyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H35 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

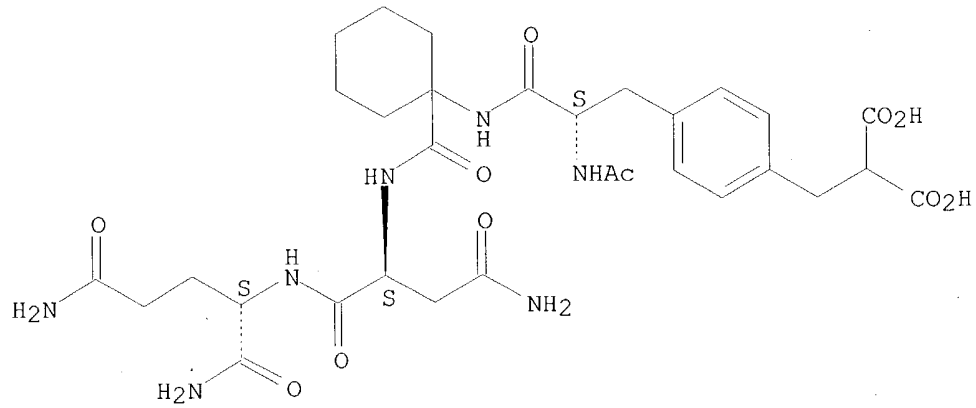
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 24 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-63-6 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-1-aminocyclohexanecarbonyl-L-asparaginyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C31 H43 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

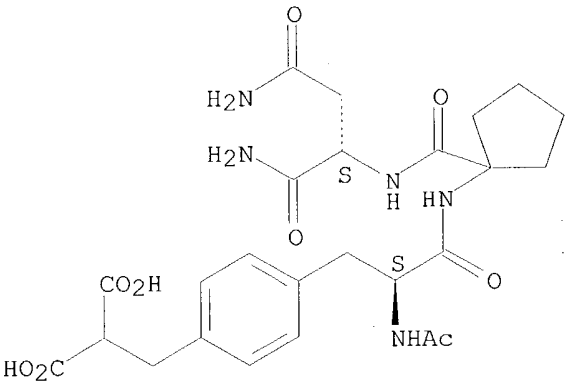


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-62-5 REGISTRY
CN L-Aspartamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-1-aminocyclopentanecarbonyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H33 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



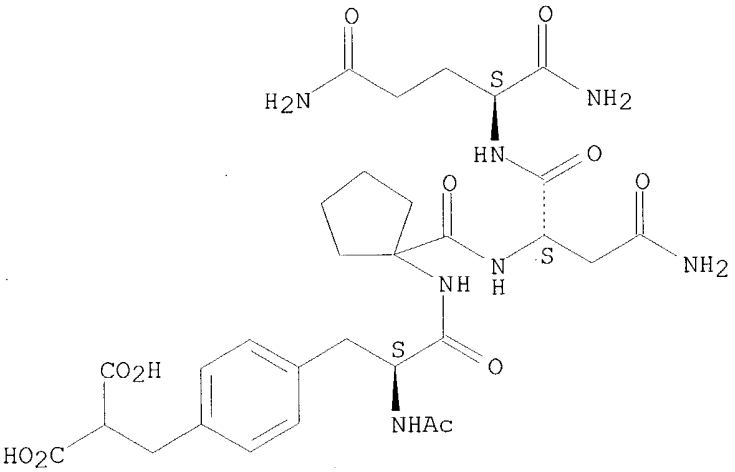
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 26 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-61-4 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-1-aminocyclopentanecarbonyl-L-asparaginyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C30 H41 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

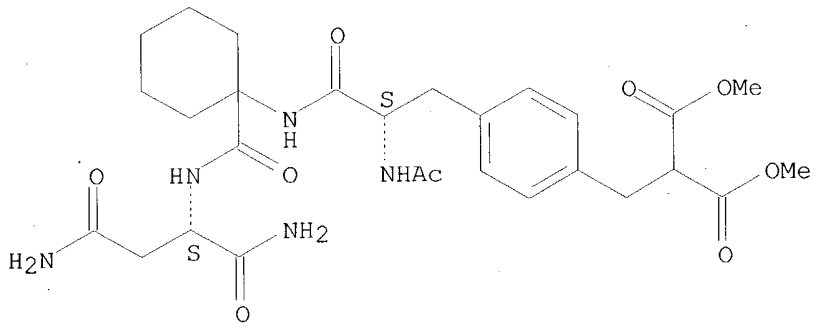


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 27 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-57-8 REGISTRY
CN L-Aspartamide, N-acetyl-4-[3-methoxy-2-(methoxycarbonyl)-3-oxopropyl]-L-phenylalanyl-1-aminocyclohexanecarbonyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C28 H39 N5 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

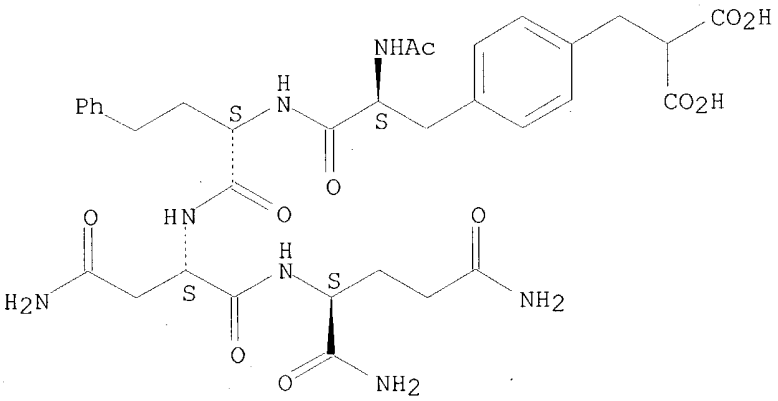
REFERENCE 1: 125:248492

L5 ANSWER 28 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-54-5 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-4-phenyl-L-2-aminobutanoyl-L-asparaginyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH

MF C34 H43 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

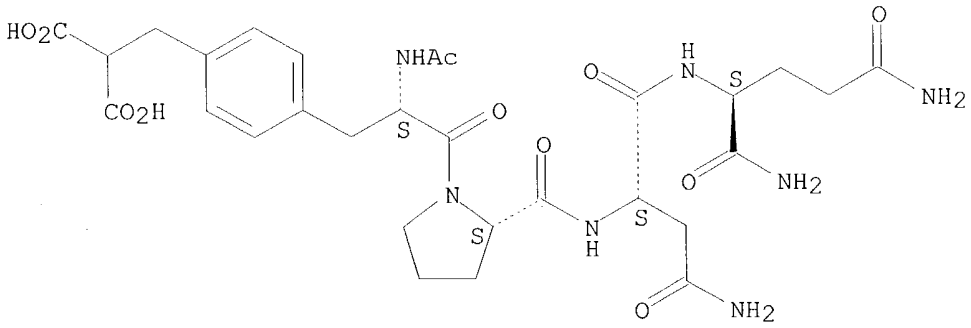


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-36-3 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-L-prolyl-L-asparaginyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C29 H39 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



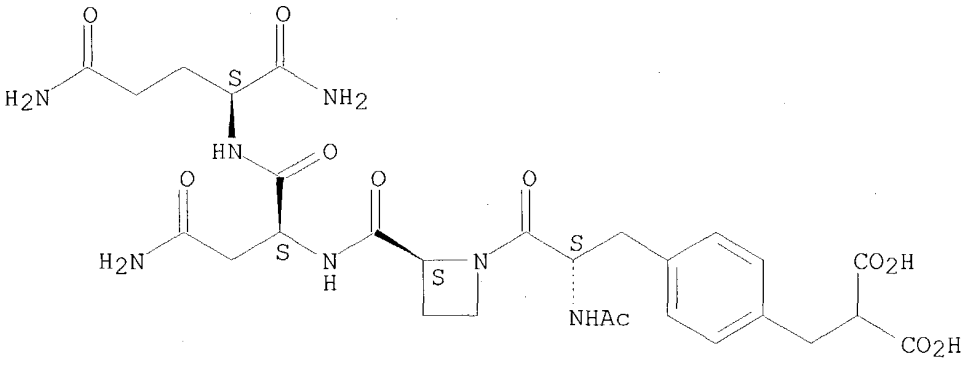
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492

L5 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181952-35-2 REGISTRY
CN L-Glutamamide, N-acetyl-4-(2,2-dicarboxyethyl)-L-phenylalanyl-L-2-azetidinecarbonyl-L-asparaginyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH
MF C28 H37 N7 O11
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:248492